



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,409	12/29/2003	Tomohiro Otani	51721/DBP/T360	7554
23363	7590	08/18/2004	EXAMINER	
CHRISTIE, PARKER & HALE, LLP			PHAN, HANH	
PO BOX 7068			ART UNIT	
PASADENA, CA 91109-7068			PAPER NUMBER	
			2633	

DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/748,409	<b>Applicant(s)</b> OTANI ET AL.	
	<b>Examiner</b> Hanh Phan	<b>Art Unit</b> 2633	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)<br>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/16/2004</u> . | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____<br>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)<br>6) <input type="checkbox"/> Other: _____. |
|---|---|

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fevrier et al (US Patent No. 5,612,805) in view of Cho et al (US Patent No. 6,335,819).

Regarding claim 1, referring to Figure 2, Fevrier discloses an optical add/drop apparatus comprising:

an input terminal (i.e., an input terminal a, Fig. 2) connecting with a first optical transmission line;

an output terminal (i.e., an output terminal f, Fig. 2) connecting with a second optical transmission line;

a drop light output terminal (i.e., a drop light output terminal c, Fig. 2);

an add light input terminal (i.e., an add light output terminal e, Fig. 2);

a first optical coupler (i.e., selecting means S1, Fig. 2) for applying the input light of the input terminal to one of the output terminals of the first optical coupler; and

a second optical coupler (i.e., coupling means S2, Fig. 2) for applying one of the light of from the add light input terminal and output light of the first optical coupler to the output terminal (col. 3, lines 36-67 and col. 4, lines 1-18).

Fevrier differs from claim 1 in that he fails to teach a waveform equalizer.

However, Cho et al. in US Patent No. 6,335,819 teaches a waveform equalizer (Figs. 1 ,

Art Unit: 2633

6 and 7, col. 7, lines 6-67, col. 8, lines 1-18). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the waveform equalizer as taught by Cho in the system of Fevrier. One of ordinary skill in the art would have been motivated to do this since Cho suggests in column 7, lines 6-67, col. 8, lines 1-18 that using such a waveform equalizer has advantage of allowing shaping the waveform of an optical signal and reducing the bit error rate.

Regarding claim 2, the combination of Fevrier and Cho teaches the first optical coupler comprises an optical switch for selectively applying the input light of the input terminal to one of the drop light output terminal and the waveform equalizer (Fig. 2 of Fevrier and Fig. 1 of Cho).

Regarding claim 3, the combination of Fevrier and Cho teaches the second optical coupler comprises an optical switch for selectively applying one of the light of from the add light input terminal and output light of the waveform equalizer to the output terminal (Fig. 2 of Fevrier and Fig. 1 of Cho).

Regarding claim 4, the combination of Fevrier and Cho teaches the waveform equalizer comprises a wavelength converter and the wavelengths of the input light and the output light of the waveform equalizer are identical (col. 8 of Cho, lines 14-16).

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Thiennot (US Patent No. 4,840,448) discloses optical transmission system.

Art Unit: 2633

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (703)306-5840.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (703)305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

A handwritten signature in cursive script, appearing to read 'Hanh Phan', is written over a horizontal line.

Hanh Phan

08/16/2004